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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/563,969

03/01/2006

Thomas Ficker

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EXAMINER

OMGBA, ESSAMA

ART UNIT

PAPER NUMBER

3726

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/563,969	<b>Applicant(s)</b> FICKER ET AL.	
	<b>Examiner</b> Essama Omgba	<b>Art Unit</b> 3726	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2011.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 14, 16-20 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 14, 16-20 and 22-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)         | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)         | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 14, 16-18 and 22-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukaya et al. (US Patent 5,775,740) in view of Ficker et al. (DE 19526900).

With regards to claim 14, Fukaya et al. discloses a cold rolling method for producing an annular composite workpiece, the method comprising inserting a first hollow cylindrical workpiece P' into a second hollow cylindrical workpiece P, wherein the first and second hollow cylindrical workpieces have radial play relative to one another when inserted into one another (it is obvious that the two cylindrical workpieces will have radial play relative to one another in order to be able to insert one into the other) and are made of different materials (col. 5, lines 27-30), axial roll forming a composite workpiece of the first and second hollow cylindrical workpieces by pressing the first and second cylindrical workpieces against each other between an outer roll forming tool 8 and an inner rolling arbor (col. 6, lines 13-15), wherein an axis of rotation of the inner rolling arbor and the axis of the outer roll forming tool are arranged parallel to each other for axial roll forming (fig. 16B), see column 5, lines 27-67 and column 6, lines 1-16. Although Fukaya et al. does not specifically disclose using two diametrically

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opposed outer roll forming tools, however it is known to use two diametrically opposed roll forming tool and an inner roll forming tool to axial roll form an annular workpiece as attested by Ficker et al., wherein an axis of rotation the inner roll forming tool and the axes of the two diametrically opposed outer roll forming tools are arranged parallel to each other respectively for axial roll forming, see figure 2. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have modified the axial roll forming tool of Fukaya et al. by using two diametrically opposed outer roll forming tools, in light of the teachings of Ficker et al., in order to more efficiently roll form the composite annular workpiece.

Regarding claim 16, Applicant should note that providing the first and second hollow cylindrical workpieces with radial play relative to one another such that they can barely be inserted by hand is an obvious matter of design choice as long as the axial roll forming on the workpieces results in a strong rigid joint. Further figures 14-16 of Fukaya et al. suggest that very little play exists between the first and second hollow workpieces when inserted one into the other.

Regarding claims 17, 18 and 22-29, Applicant should note that the first and second hollow cylindrical workpieces of Fukaya et al. are pipes and the workpieces are made of plastic and aluminum (col. 4, lines 26-36 of Fukaya et al.). Further the particular composite workpiece being made or the materials used lend no patentable weight to the process being claimed since the process of Fukaya et al./Ficker et al. could be used to make pipe joints, bearing rings or gear rings.

Regarding claim 30, Applicant should note that it is obvious that a cold pressure welding connection will be produced between the first and second hollow cylindrical workpieces.

3. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fukaya et al./Ficker et al. as applied to claim 14 above, and further in view of Yamaguchi et al. (US Patent 6,629,547).

Fukaya et al./Ficker et al. discloses a cold rolling method for producing an annular composite workpiece as shown above. Although Fukaya et al./Ficker et al. does not specifically disclose providing an aluminum layer positioned between the two annular workpieces to promote the connection between the workpieces or for weight reduction, however it is known to use an adhesion layer between inner and outer members of a composite workpiece in order to promote the connection between the inner and outer member as attested by Yamaguchi et al., wherein the adhesion layer has affinity to the inner and outer members, see column 3, lines 60-67 and column 4, lines 1 and 2. Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made, to have provided an aluminum layer between the first and the second hollow cylindrical workpieces of Fukaya et al./Ficker et al., in light of the teachings of Yamaguchi et al., in order to provide an adhesion layer having affinity with the first and second hollow cylindrical workpieces, thereby promoting the connection between the first and second hollow cylindrical workpieces.

***Response to Arguments***

4. Applicant's arguments with respect to claims 14, 16-20 and 22-30 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Essama Omgba whose telephone number is (571) 272-4532. The examiner can normally be reached on M-F 9-6:30, 1st Friday off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bryant can be reached on (571) 272-4526. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Essama Omgba/  
Primary Examiner, Art Unit 3726

eo  
May 8, 2011